

(FILE 'HOME' ENTERED AT 17:21:35 ON 12 SEP 2002)

FILE 'CAPLUS, BIOSIS, EMBASE, AGRICOLA' ENTERED AT 17:21:47 ON 12 SEP  
2002

L1        127903 S TRANSGENIC  
L2        10 S L1 AND (AMYLOID BETA PEPTIDE ALCOHOL DEHYDROGENASE OR ABAD)  
L3        8 DUP REM L2 (2 DUPLICATES REMOVED)  
L4        55272 S AMYLOID  
L5        23533 S L4 (1A) BETA  
L6        28 S L5 AND ALCOHOL DEHYDROGENASE  
L7        10 S L6 AND TRANSGENIC  
L8        7 DUP REM L7 (3 DUPLICATES REMOVED)  
            E STERN DAVID/AU  
            E STERN DAVID M/AU  
L9        254 S E3-4  
L10      8 S L9 AND TRANSGENIC  
L11      7 DUP REM L10 (1 DUPLICATE REMOVED)  
            E YAN SHI DU/AU  
L12      116 S E3  
L13      7 S L12 AND TRANSGENIC  
L14      5 DUP REM L13 (2 DUPLICATES REMOVED)  
L15      0 S AMYLOID BETA PEPTIDE ALCOHOL DEHYDROGENASE  
L16      5 S L6 AND (CDNA OR DNA)  
L17      3 DUP REM L16 (2 DUPLICATES REMOVED)  
L18      2 S L6 AND CLON?  
L19      1 DUP REM L18 (1 DUPLICATE REMOVED)  
L20      75 S ERAB  
L21      4 S L20 AND TRANSGENIC  
L22      2 DUP REM L21 (2 DUPLICATES REMOVED)  
L23      0 S L20 AND ABAD

L Numb r	Hits	Search T xt	DB	Time stamp
1	5733	transg nic adj (mice r m us or rod nt\$1 or mammal\$1)	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:00
2	0	(transg nic adj (mic r m use or r d nt\$1 or mammal\$1)) sam (amyloid adj b ta adj peptide adj alcohol adj dehydrogenase or abad)	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:01
3	266	(transgenic adj (mice or mouse or rodent\$1 or mammal\$1)) same (amyloid or app)	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:02
4	13	((transgenic adj (mice or mouse or rodent\$1 or mammal\$1)) same (amyloid or app)) and (alcohol adj dehydrogenase)	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:18
5	138	stern-david\$.in.	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:18
6	10	stern-david\$.in. and (amyloid or app or app5\$2 or app6\$2 or app7\$2 or alzheimers)	USPAT; US-PGPUB; EPO; JPO	2002/09/12 17:19

L22 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS  
AN 1998:621308 CAPLUS  
DN 129:240883  
TI Cloning and cDNA sequence of intracellular amyloid-.beta. binding polypeptide and its uses in diagnosis and treatment of neurodegenerative diseases  
IN Stern, David M.; Yan, Shi Du  
PA The Trustees of Columbia University In the City of New York, USA  
SO PCT Int. Appl., 83 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9840484	A1	19980917	WO 1998-US4915	19980312
	W: AU, CA, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	US 6268479	B1	20010731	US 1997-815225	19970312
	AU 9867603	A1	19980929	AU 1998-67603	19980312
	EP 973893	A1	20000126	EP 1998-912928	19980312
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1997-815225	A2	19970312		
	WO 1998-US4915	W	19980312		

L11 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
AB Amyloid  $\beta$ -peptide-binding alc. dehydrogenase (ABAD) is a member of the family of short chain dehydrogenase/reductases whose distinctive properties include the capacity to bind amyloid  $\beta$ -peptide and enzymic activity toward a broad array of substrates including n-isopropanol and  $\beta$ -estradiol. In view of the wide substrate specificity of ABAD and its high activity on L- $\beta$ -hydroxyacyl-CoA derivs., the authors asked whether it might also catalyze the oxidn. of the ketone body D-3-hydroxybutyrate. This was indeed the case, and oxidn. proceeded with Km of .apprx.4.5 mM and Vmax of .apprx.4 nmol/min/mg protein. When placed in medium with D- $\beta$ -hydroxybutyrate as the principal energy substrate,  
COS cells stably transfected to overexpress wild-type ABAD (COS/wtABAD) better maintained 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide redn., cellular energy charge, and morphol. phenotype compared with COS/vector cells. Using a severe model of metabolic perturbation, **transgenic** mice with targeted neuronal expression of ABAD subjected to transient middle cerebral artery occlusion showed strokes of smaller vol. and lower neurol. deficit scores in parallel with increased brain ATP and decreased lactate, compared with nontransgenic controls. These data suggest that ABAD contributes to the protective response to metabolic stress, esp. in the setting of ischemia.

=> d 119 ab

L19 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1  
AB In order to discover possible new testicular paracrine factors involved in the establishment of spermatogenesis, a modified differential display reverse transcription, polymerase chain reaction (DDRT-PCR) procedure was used to detect gene transcripts preferentially expressed in the testes of the azoospermic w/wv mutant mouse. One of the differentially expressed gene products showed partial similarity to members of the short-chain **alcohol dehydrogenase** family of enzymes. This cDNA fragment was used to obtain the full-length mouse cDNA sequence, which initially showed moderate similarity to a 20beta-steroid dehydrogenase from lower organisms, and later shown to have > 85% similarity to a novel endoplasmic reticulum-associated-binding protein (ERAB) from the human brain, implicated in Alzheimer's disease. A recently **cloned** bovine sequence also of high similarity suggests that this molecule might also represent an isozyme of 3-hydroxyacyl-CoA dehydrogenase. Using the mouse cDNA as probe, northern hybridization showed enrichment of the transcript to the testicular Leydig cells, and showed a specific approximately 20-fold enrichment in the azoospermic mouse testis. The level of the testicular ERAB transcript does not seem to change through puberty, suggesting that a lack of germ cells alone is not responsible for the up-regulation in the w/wv testis. Using the three-dimensional coordinates of the published 20beta-hydroxysteroid dehydrogenase structure as template, it was additionally possible to construct a molecular model of the novel protein which showed it to have a very similar structure to this enzyme, including the substrate-binding domain.

TI Amyloid .beta.-peptide-binding alcohol dehydrogenase is a component of  
the cellular response to nutritional stress

AU Yan, Shi Du; Zhu, Yucui; Stern, Eric D.; Hwang, Yuying C.; Hori, Osamu;  
Ogawa, Satoshi; Frosch, Matthew P.; Connolly, E. Sander, Jr.; McTaggart,  
Ryan; Pinsky, David J.; Clarke, Steven; Stern, David M.; Ramasamy,  
Ravichandran

CS Department of Pathology, College of Physicians and Surgeons of Columbia  
University, New York, NY, 10032, USA

SO Journal of Biological Chemistry (2000), 275(35), 27100-27109  
CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:108636 BIOSIS

DN PREV200100108636

TI Double **transgenic** mice overexpressing **ABAD** and  
mutAPP(V717F,K670M,N671L) show an impairment of hippocampal long-term  
potentiation.

AU Trillat, A. C. (1); Ma, J.; Yan, S. D.; Hegde, A. N.; Stern, D.; Arancio,  
O.

CS (1) SUNY, Brooklyn, NY USA

SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract  
No.-491.6. print.  
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New  
Orleans, LA, USA November 04-09, 2000 Society for Neuroscience  
. ISSN: 0190-5295.

DT Conference

LA English

SL English

L3 ANSWER 6 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:108654 BIOSIS

DN PREV200100108654

TI Enhanced neuronal stress in double **transgenic** mice with targeted  
overexpression of rage and mutant APP.

AU Stern, D. M. (1); Zhu, Y.; Zhu, A.; Du, H.; Schmidt, A.; Yan, S.

CS (1) Columbia Univ Col Physicians " Surgeons, New York, NY USA

SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract  
No.-491.14. print.  
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New  
Orleans, LA, USA November 04-09, 2000 Society for Neuroscience  
. ISSN: 0190-5295.

DT Conference

LA English

SL English

L3 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:97051 BIOSIS

DN PREV200100097051

TI Enhanced neuronal stress and cytotoxicity in double **transgenic**  
mice with targeted overexpression of **ABAD** and mutant amyloid  
precursor protein.

AU Yan, S. (1); Zhu, Y.; Zhu, H.; Trillat, A.; Arancio, O.; Buttini, M.;  
Stern, D.

CS (1) Columbia Univ Col Physicians Surgeons P&AMPS 11-518, New York, NY

USA SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract  
No.-301.3. print.  
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New  
Orleans, LA, USA November 04-09, 2000 Society for Neuroscience  
. ISSN: 0190-5295.

L3 ANSWER 1 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 2001:574522 BIOSIS  
DN PREV200100574522  
TI Amyloid-beta alcohol dehydrogenase (**ABAD**) decreases seizure severity and is neuroprotective in kainate and pilocarpine seizure models.  
AU McKhann, G. M. (1); Sosunov, A. (1); Zhang, H. P.; Zhu, Y.; Ogawa, S.; Ramasamy, R.; Stern, D. M.; Yan, S. D.  
CS (1) Neurosurgery, Columbia University, New York, NY USA  
SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 2078. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.  
DT Conference  
LA English  
SL English

L3 ANSWER 2 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 2001:574131 BIOSIS  
DN PREV200100574131  
TI Amyloid-beta alcohol dehydrogenase prevents dopaminergic neurodegeneration in the MPTP-mouse model of Parkinson's disease.  
AU Tieu, K. (1); Vila, M. (1); Jackson-Lewis, V. (1); Zhang, H. P.; Stern, D. M.; Yan, S. D.; Przedborski, S. (1)  
CS (1) Neurology, Columbia Univ., New York, NY USA  
SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 1991. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.  
DT Conference  
LA English  
SL English

L3 ANSWER 3 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 2001:498237 BIOSIS  
DN PREV200100498237  
TI Transgenic mice with neuronal overexpression of **ABAD** and mutant APP display impaired synaptic transmission and decreased brain ATP.  
AU Yan, S. (1); Zhang, H. P. (1); Battaglia, F.; Zhu, Y. (1); Stern, D. M. (1); Ramasamy, R. (1); Arancio, O.  
CS (1) Dept Pathol, Columbia Univ Col Physicians Surgeons, P and S 11-518, New York, NY USA  
SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 925. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.  
DT Conference  
LA English  
SL English

L3 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
AN 2000:641915 CAPLUS  
DN 133:309398

DT Conference  
LA English  
SL English

L3 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 2000:73122 BIOSIS  
DN PREV200000073122  
TI Expression of **ABAD** has cytoprotective properties in response to nutritional and ischemic stress.  
AU Stern, D. (1); McTaggart, R. A. (1); Zhu, A. (1); Pinsky, D. J. (1); Connolly, E. S., Jr. (1); Choudhri, T. F. (1); Roher, A.; Clarke, S.; Yan,  
S. D. (1)  
CS (1) Columbia University, New York, NY USA  
SO Society for Neuroscience Abstracts, (1999) Vol. 25, No. 1-2, pp. 546.  
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience, Part 1  
Miami Beach, Florida, USA October 23-28, 1999 The Society for Neuroscience  
. ISSN: 0190-5295.

DT Conference  
LA English